Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-4 (Canceled)

Claim 5 (Currently Amended): A process for manufacturing a capacitor, wherein said capacitor has a couple of electrodes with a dielectric placed therebetween and at least one of said electrodes is made of copper and said capacitor is formed on a semiconductor substrate, comprising ~~the steps of~~:

forming a nitrided metal film of a shape corresponding to a desired shape of the at least one of said electrodes ~~one electrode~~ on said semiconductor substrate or said dielectric; and

forming the at least one of said ~~one electrode~~ electrodes on said nitrided metal film by electroplating using said nitrided metal film as [[the]] a seed.

Claim 6 (Currently Amended): A process for manufacturing a capacitor ~~manufacturing process~~ according to Claim 5, comprising ~~the steps of~~:

forming said nitrided metal film on said semiconductor substrate;

using the at least one of said ~~one electrode~~ electrodes as [[the]] a lower electrode of the capacitor and forming [[a]] said nitrided metal film ~~functioning~~ as a barrier on said lower electrode;

forming said dielectric on said nitrided metal film; and

forming another ~~the other~~ electrode, as an [[the]] upper electrode of the capacitor, on said dielectric.

Claim 7 (Currently Amended): A process for manufacturing a capacitor ~~manufacturing process~~ according to Claim 5, wherein said nitrided metal film is formed on said dielectric, ~~and said nitrided metal film intervening~~ between said dielectric and the at least one of said ~~one electrode functions~~ electrodes, as a barrier to diffusion of copper.

Claim 8 (Currently Amended): A process for manufacturing a capacitor ~~manufacturing process~~ according to Claim 5, wherein ~~the material for~~ said nitrided metal film is TaN.

Claim 9 (Currently Amended): A process for manufacturing a capacitor ~~manufacturing process~~ according to Claim 5, wherein ~~the material for~~ said nitrided metal film is TiN.

Claim 10 (New): A method of manufacturing a capacitor comprising:

forming a recess in an insulating layer;

depositing a nitrided metal film to cover surfaces within the recess;

forming a lower capacitor electrode in the recess by electroplating using the nitrided metal film as a seed;

forming a second insulating layer over the lower capacitor electrode and the insulating layer;

forming a second recess within the second insulating layer above the lower capacitor electrode;

forming a dielectric film over the lower capacitor electrode in the second recess; and

forming an upper capacitor electrode within the second recess in the second insulating layer, on the dielectric film.

Claim 11 (New): The method of manufacturing a capacitor of claim 10, wherein said forming an upper capacitor electrode comprises:

depositing a second nitrided metal film to cover surfaces within the second recess; and

performing electroplating using the second nitrided metal film as a seed, to form the upper capacitor electrode within the second recess.

Claim 12 (New): The method of manufacturing a capacitor of claim 10, wherein the lower capacitor electrode is copper.

Claim 13 (New): The method of manufacturing a capacitor of claim 10, wherein the nitrided metal film is TaN.

Claim 14 (New): The method of manufacturing a capacitor of claim 10, wherein the nitrided metal film is TiN.

Claim 15 (New): The method of manufacturing a capacitor of claim 10, wherein the nitrided metal film is a diffusion barrier that prevents diffusion of metal from the lower capacitor electrode into the insulating layer.

Claim 16 (New): The method of manufacturing a capacitor of claim 10, further comprising forming another nitrided metal film between the lower capacitor electrode and the dielectric film.

Claim 17 (New): The method of manufacturing a capacitor of claim 11, wherein the upper capacitor electrode is copper.

Claim 18 (New): The method of manufacturing a capacitor of claim 11, wherein the second nitrided metal film is TaN.

Claim 19 (New): The method of manufacturing a capacitor of claim 11, wherein the

second nitrided metal film is TiN.

Claim 20 (New): The method of manufacturing a capacitor of claim 11, wherein the second nitrided metal film is a diffusion barrier that prevents diffusion of metal from the upper capacitor electrode into the second insulating layer.

Claim 21 (New): The method of manufacturing a capacitor of claim 10, wherein said forming a dielectric film comprises extending the dielectric film out of the second recess to cover an upper surface of the second insulating layer.

Claim 22 (New): The method of manufacturing a capacitor of claim 21, wherein an upper surface of the upper capacitor electrode and an upper surface of the dielectric film covering the second insulating layer are coplanar.